

ON CERTAIN SPECIES OF CANTHARIS (TELEPHORUS)

(Coleoptera)

BY H. C. FALL

*Tyngsboro, Mass.**Cantharis perpallens* Fall, n. sp.

This is the form which in my "Coleoptera of Southern California" (Occ. Papers, Calif. Acad. Sci. VIII, 1901, p. 122) I referred with some doubt to the *larvalis* of Le Conte, which later on this author concluded, and I think correctly, to be only a pale form of *notatus*. Since then I have carefully compared my Pomona—Pasadena species with the type of *larvalis* and find it to be quite distinct therefrom.

Perpallens is entirely yellowish testaceous, length 8 to 9 mm., width $2\frac{1}{4}$ to $2\frac{1}{2}$ mm.; ungual formation the same as in *larvalis* (= *notatus*), viz—inner claw of front tarsus of male cleft at tip, with its outer portion obtuse, almost malformed; all the other claws simple; in female all claws simple. It differs from *larvalis* by its larger eyes (δ), prothorax more gradually rounded at front angles, these being practically obliterated, entirely pale coloration (body beneath and occipital spots dark in *larvalis*), basal joint of front tarsus in male less dilated, 2nd and 3rd joints evidently longer than wide (2nd scarcely, 3rd not longer than wide in *larvalis*), elytra scarcely tuberculate, the erect hairs shorter and pallid.

Not rare at Pomona and Pasadena, California, in May and June by beating willows.

In the table of *Telephorus* of LeConte's Synopsis of the Lampyridæ of the United States (1881), four species—*divisus*, *notatus*, *lautus* and *ochropus*—are included in Section "E," which is characterized by the "anterior claws of all the tarsi toothed at base, cleft at tip, elytra sparsely tuberculate." As no distinction between male and female is mentioned, the implication is that these characters apply to both sexes. As a matter of fact *divisus* alone of the four species mentioned conforms to this diagnosis. In the other three species all the tarsal claws are simple in the female, and in the males of *notatus* and *ochropus* at least only the anterior protarsal claw is cleft. *Lautus* was described from a unique female with yellow legs; the dark legged males later associated by LeConte with the type

probably do not belong there and I have not yet definitely identified males of this species. There is no very definite tooth at the base of the claws in any of these three species.

Cantharis lecontei Fall, new name
(*C. (Telephorus) collaris* || *Lec.*)

This is given as a variety of *impressus* (= *tuberculatus*) in LeConte's last table (1881), and is so placed in his box. The type is a female from Illinois and there is a second example, also a female, from Missouri. Two females from Southern Pines, North Carolina, and a pair (♂ ♀) from Natick, Mass. in my collection seem almost certainly to be the same as the LeConte type, and if so *collaris* cannot possibly be a variety of *impressus*, for in this latter the antennæ of the male are subserrate and fully two-thirds as long as the body, while in my Natick male they are much shorter and not in the least serrate.

In the Leng list *collaris* is made to appear synonymous with *armiger* Coup. This cannot be true if, as has long been supposed, *armiger* is specifically the same as *impressus*, nor do the original descriptions warrant such association. Just why *tuberculatus* was selected as the proper name of this species in the Leng list is not clear to me. The description of *impressus* takes page precedence over *tuberculatus* in LeConte's 1851 paper and he recognizes this fact in his 1881 Synopsis.

In his early paper on the North American Lampyridæ (1851) LeConte briefly described numerous species of *Telephorus*, among them *T. pusillus* based on a single New York specimen which he said much resembled *T. rectus* Melsh. though much smaller. In his later Synopsis of this family (1881) LeConte referred this species to *rectus* as a synonym, and then inadvertently used the same name, *pusillus*, for a different species which he described as new from Virginia and Georgia. The name of this later *pusillus* must therefore be changed.

Some years ago I received from Mr. J. W. Green of Easton, Pennsylvania, a series of *Cantharis* of the type of LeConte's 1881 *pusillus*. Mr. Green had given his ample material very careful study, including examination of genitalia, and believed four distinct species were involved, but it was impossible for him to determine which was the true *pusillus* of LeConte as they all keyed to that species in LeConte's table. I have in turn

carefully studied the specimens sent me and am inclined to think Mr. Green was correct in his conclusions. The following tabular statement may enable the student to separate the four species in question. They are all small slender species, piceous, with mouth, base of antennæ, prothorax, legs, and the lateral and sutural margins of the elytra pale yellow.

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| 1. Protarsal claws of male rather widely cleft; muzzle shorter in front of eyes; prothorax in the male usually entirely yellow or at most with a narrow median posteriorly abbreviated darker shade; in the female often with narrow median dark vitta. (Pa.; Conn.)..... | <i>imbecillis</i> Lec. |
| ... Protarsal claws of male finely narrowly cleft; muzzle appreciably longer before the eyes, more noticeably so as a rule in the female; prothorax entirely yellow in both sexes; average size a little smaller..... | 2 |
| 2. Antennæ slightly more slender, distinctly longer than half the body in both sexes, the median joints more than three times as long as wide in the male and fully three times as long as wide in the female..... | 3 |
| ... Antennæ slightly less slender and perceptibly shorter, especially in the female, in which they are not appreciably longer than half the body, the median joints scarcely more than twice as long as wide in the female and rather less than three times as long as wide in the male; claws nearly as in <i>mollis</i> , (N. J.)..... | <i>mimus</i> n. sp. |
| 3. Protarsal claws of male narrowly cleft, the inner part however, distinctly separated from the outer and perceptibly shorter; superior plate of genital armature of male very slightly sinuate at middle of apex. (Pa.; Mass.; N. H.; Conn.; N. Y.) (<i>pusillus</i> Lec. 1881, not 1851)..... | <i>mollis</i> new name |
| ... Protarsal claws of male still more finely cleft, the inner part approximate to the outer at tip and scarcely shorter; middle and hind claws similarly more finely cleft than in the preceding; superior plate of male genital armor rather deeply emarginate | <i>greeni</i> n. sp. |

CANTHARIS (TELEPHORUS) IMBECILLUS Lec.

This species is represented in the Leconte collection by a female specimen bearing the name label and therefore to be considered the type. It carries an orange disk locality label (Southern States) but no locality is named in the description. *Imbecillis* has been referred by LeConte as a synonym of *scitulus* and the type so stands in his collection. This I am sure is an error. The prothorax in *imbecillis* is distinctly smaller and

less transverse than in *scitulus* but is quite the same in type as that in LeConte's 1881 *pusillus*. Moreover in *scitulus* all the ventral segments are in part testaceous, the claws are more narrowly cleft in the male, the head is more widely pale in front and the antennæ are less slender. That my Pennsylvania and Connecticut specimens are the true *imbecillis* is not absolutely certain but the probability that they are so is great. In LeConte's brief description the knees are said to be infusate. They are lightly so in the type but I have not observed this in any other specimen. In the thirteen examples before me the length (head deflexed) varies from 4.5 to 6 mm.

Localities represented are: Pennsylvania, Montrose and Wind Gap (J. W. Green), N. Bloomfield (Champlain); Connecticut (Cornwall, K. F. Chamberlain).

Cantharis mimus Fall, n. sp.

Of this species I have but a single pair bearing label Chatsworth N. J., VIII-4-28 (J. W. Green). Length 3.9 mm. (♂), 4.75 (♀).

Aside from the antennal character given in the table, a possible significant feature in both these examples is the very wide pale sutural stripe, this being at base fully twice as wide and at apex fully one-half wider than the adjacent dark stripe. This of course may not prove constant in series. In the male the ventral apex and in the female the apices of the last four segments are pale. The male of the above pair is taken as the type.

Cantharis mollis Fall, new name

(*pusillus* Lec 1881, not *pusillus* Lec. 1851)

A common species from the New England States to Virginia and perhaps further south. Its western limits are uncertain. It is on Dury's Cincinnati list but not on Wickham's Iowa list. LeConte's type is a male from Virginia and with it is placed a female from the same state.

The claws of the male are finely cleft but the inner portion is distinctly separated from the outer at the tips. This character makes separation from *imbecillis* and *greeni* rather easy, but in *mimus* the slightly shorter and less slender antennæ will have to be relied upon. In the 42 examples before me

the length ranges from 4.2 mm. to 5.8 mm., the greater number being around 5 mm.

The following specific localities are represented in my series. New Hampshire (Mt. Washington, Center Harbor, Farmington); Massachusetts (Tyngsboro, Lowell, Sherborn, Pepperell, Marion, Mt. Holyoke); Connecticut (Cornwall); New York (Peekskill); Pennsylvania (Effort and Lake Pocono, J. W. Green); Maryland (Mountain Lake Park). Dates of capture range from May 31 to September 14.

Cantharis greeni Fall, n. sp.

The very finely cleft tarsal claws of the male constitute the chief diagnostic character of this species, and one which with but little experience is easily appreciated. The two parts of the claw are more nearly of equal length than usual and though not in actual contact at tip are closely approximate. The pale sutural stripe of the elytra is nearly as wide as in *mimus* and varies but little in the series at hand. Length 4 to 5.3 mm.

West Virginia (Williamson, VII-9-30, 8 exs., J. W. Green; Fairmont, 2 exs., P. N. Musgrave).

The type is a male from Williamson.

A CORRECTION

On page 29 of this volume change the name *Nemocestes koebeli* to *Nemocestes koebelei*.—E. C. Van Dyke.

NOTES ON *ELEODES LETCHERI* AND *RILEYI*

In 1902 the writer collected *Eleodes letcheri* at Verdi, Nevada. This has remained the only known habitat of the species until recently when John E. Blum discovered it at Tetonia, Idaho. Tetonia also yielded *Eleodes rileyi* Casey whose author gave Arizona as the type locality. In Bul. 63, U. S. Natl. Mus. the writer mentions *rileyi* as possibly occurring in Idaho.—F. E. Blaisdell.